

# MSTB 2,5/13-GU - PCB header



1783494

<https://www.phoenixcontact.com/de/produkte/1783494>

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 13, number of rows: 1, number of positions: 13, number of connections: 13, product range: MSTB 2,5/...-GU, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.3 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: reversed, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Easy PCB replacement thanks to plug-in modules
- Well-known mounting principle allows worldwide use

## Commercial Data

Item number	1783494
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	E1 - Leiterplattenanschl.
Product Key	AACSGE
GTIN	4017918216221
Weight per Piece (including packing)	5,9 g
Weight per Piece (excluding packing)	5,009 g
Customs tariff number	85366930
Country of origin	CN

# MSTB 2,5/13-GU - PCB header



1783494

<https://www.phoenixcontact.com/de/produkte/1783494>

## Technical Data

### Product properties

Type	Standard
Product line	COMBICON Connectors M
Product type	PCB headers
Product family	MSTB 2,5/..-GU
Number of positions	13
Pitch	5 mm
Number of connections	13
Number of rows	1
Mounting flange	without
Number of potentials	13
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

Nominal current $I_N$	12 A
Nominal voltage $U_N$	320 V
Degree of pollution	3
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	400 V
Rated surge voltage (II/2)	4 kV

### Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

### Material specifications

#### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Tin-plated
Metal surface contact area (top layer)	Tin (3 - 5 $\mu\text{m}$ Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 $\mu\text{m}$ Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 $\mu\text{m}$ Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 $\mu\text{m}$ Ni)

#### Material data - housing

Color (Housing)	green (6021)
-----------------	--------------

# MSTB 2,5/13-GU - PCB header

1783494

<https://www.phoenixcontact.com/de/produkte/1783494>

Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

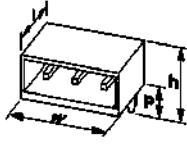
## Material data – actuating element

Color ()	()
----------	----

## Notes

Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.
--------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Dimensions

Dimensional drawing	
Pitch	5 mm
Width [w]	64.96 mm
Height [h]	10.97 mm
Length [l]	10 mm
Installed height	8.57 mm
Solder pin length [P]	3.3 mm

## Electrical tests

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 225
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	4 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3.2 mm
Rated insulation voltage (II/2)	400 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	4 mm

# MSTB 2,5/13-GU - PCB header



1783494

<https://www.phoenixcontact.com/de/produkte/1783494>

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

# MSTB 2,5/13-GU - PCB header





1783494

<https://www.phoenixcontact.com/de/produkte/1783494>

## Approvals

 <b>IECEE CB Scheme</b> Approval ID: DE1-60988-B1B2				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	250 V	12 A	-	-

 <b>EAC</b> Approval ID: B.01687				
----------------------------------------------------------------------------------------------------------------------	--	--	--	--

 <b>cULus Recognized</b> Approval ID: E60425-19931011				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B				
	300 V	15 A	-	-
Use group D				
	300 V	10 A	-	-

 <b>VDE Zeichengenehmigung</b> Approval ID: 40050648				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	250 V	12 A	-	-

# MSTB 2,5/13-GU - PCB header



1783494

<https://www.phoenixcontact.com/de/produkte/1783494>

## Classifications

### ECLASS

ECLASS-9.0	27440402
ECLASS-10.0.1	27440402
ECLASS-11.0	27460201

### ETIM

ETIM 8.0	EC002637
----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# MSTB 2,5/13-GU - PCB header



1783494

<https://www.phoenixcontact.com/de/produkte/1783494>

## Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e No hazardous substances above threshold values
------------	-----------------------------------------------------------------------------------------------------------

Phoenix Contact 2023 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT Deutschland GmbH  
Flachmarktstraße 8  
D-32825 Blomberg  
+49 52 35/3-1 20 00  
[info@phoenixcontact.de](mailto:info@phoenixcontact.de)